aprepitant price. **CONCLUSIONS:** The using aprepitant plus standard antiemetic therapy was more effective and economically justified treatment option for prevention of nausea and vomiting associated with highly and moderately emetogenic cancer chemotherapy.

PCN123

ECONOMIC EVALUATION OF FULVESTRANT 500 MG VERSUS GENERIC NON-STEROIDAL AROMATASE INHIBITORS IN PATIENTS WITH ADVANCED BREAST CANCER IN NORWAY

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OBJECTIVES: In Norway, breast cancer represented 23% of all new cancer cases between 2004 and 2008, and was a leading cause of mortality representing 13% of all cancer deaths. The objective of this study was to perform an economic evaluation of fulvestrant 500 mg compared with anastrozole and letrozole used as second line endocrine therapies in the treatment of advanced breast cancer in post-menopausal women in Norway. **METHODS:** The economic analysis was conducted by using a simulation model estimating progression-free survival, overall survival and associated costs and utility gains over the expected lifetime of the patients. As there are no head-to-head trials comparing fulvestrant 500 mg with aromatase inhibitors, the clinical evidence for the comparative effectiveness was obtained from a network meta-analysis. The economic evaluation was conducted from a health care perspective, with costs and resource use based on published sources and expert assessment. **RESULTS:** The cost-effectiveness ratio of fulvestrant 500 mg versus anastrozole 1 mg was 36,000 EUR per quality-adjusted life year (QALY), with incremental costs of 9,600 EUR and incremental QALYs of 0.27. The cost-effectiveness ratio of fulvestrant 500 mg versus letrozole 2.5 mg was 62,000 EUR per QALY, with incremental costs of 21,000 EUR and incremental QALYs of 0.34. In the sensitivity analysis the results were stable for variations of key parameters, such as the time horizon, the hazard ratios for overall survival, the choice of parametric distribution for progression-free survival and the discount rate. **CONCLUSIONS:** Given an informal cost-effectiveness threshold of around 70,000 EUR/QALY in Norway, the results of the economic evaluations suggest that fulvestrant 500 mg is a cost-effective treatment compared with alternative treatments such as anastrozole and letrozole. These findings indicate that fulvestrant 500 mg is a valuable treatment option for patients with advanced breast cancer in Norway.

PCN124

COST-EFFECTIVENESS OF THE SYSTEMATIC IDENTIFICATION AND TREATMENT OF COMORBID MAJOR DEPRESSION FOR PEOPLE WITH CHRONIC DISEASES: THE EXAMPLE OF CANCER

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OBJECTIVES: Comorbid major depression occurs in approximately ten percent of people suffering from a chronic medical condition such as cancer. A 'collaborative care' approach can be used to systematically identify and treat comorbid major depression. However, we lack information on cost-effectiveness of overall approach as economic evaluations published to date have focused solely on the treatment stage. We therefore aimed to use the best available evidence to estimate the cost-effectiveness of the whole approach (both systematic identification and systematic treatment) compared with usual practice, for patients attending specialist cancer clinics. **METHODS:** A cost-effectiveness analysis using a decision analytic model structured to reflect both the identification and treatment processes. Evidence was taken from reviews of relevant clinical trials and from observational studies, together with data from a large depression screening service. Sensitivity and scenario analyses were undertaken to determine the effects of variations in depression incidence rates, time horizons, patient characteristics and alternative estimates of treatment effect. Probabilistic sensitivity analysis was also undertaken. **RESULTS:** Systematic depression management generated more costs than usual practice, but also more quality adjusted life years (QALYs). The incremental cost-effectiveness ratio was £11,765 per QALY and the probabilities of systematic depression management being cost-effective at thresholds of £20,000 and £30,000 per QALY were 0.998 and 1 respectively. Findings were robust to tests of variation in key model parameters. **CONCLUSIONS:** A combined approach to the systematic identification and treatment of comorbid major depression in cancer patients is likely to be cost-effective at widely accepted threshold values. Systematic depression management may be a better way of generating QALYs for cancer patients than some existing medical and surgical treatments. It could potentially be applied to other chronic medical conditions.

PCN125

PET-BASED RADIOTHERAPY TREATMENT PLANNING IS HIGHLY COST-EFFECTIVE COMPARED TO CT-BASED PLANNING: A MODEL-BASED EVALUATION

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OBJECTIVES: PET-based radiotherapy planning for selective lymph node irradiation is an example of the current tendency to individualize treatment in cancer. We evaluated the cost-effectiveness of individualized radiotherapy planning, comparing PET-CT-based to CT-based radiotherapy treatment planning in non-small cell lung cancer. **METHODS:** Our analysis uses a previously developed decision model. The model was based on data for 200 NSCLC patients with inoperable stage I-IIIB, provided by the Maastro Clinic. Transition rates in the model were estimated by multi-state statistical modelling and include the impact of patient and tumour features on disease progression. Resource use estimates, costs and utilities were obtained from the database of the Maastro Clinic, the literature and Dutch guidelines. Primary outcomes were the difference in life years (LY), quality adjusted life years (QALY), costs and the incremental cost-effectiveness and cost-utility ratio (ICER and ICUR) of PET-CT versus CT based radiotherapy planning. Model outcomes were obtained from averaging the outcome for 50 000 simulated patients. To present uncertainty, a probabilistic sensitivity analysis was done. In scenario analyses, we explored the effect of varying the input parameters for costs and QALYs and the effect of changing the assumptions regarding the multi-state model. **RESULTS:** The incremental costs of PET-CT based planning were € 534 (95% CI: €-4670 – €6080) for 0,43 incremental LYs (95% CI: 0,31 – 0,52) and 0,33 QALYs gained (95% CI: 0,26 – 0,45). The base-case scenario resulted in an ICER of € 1242 per LY gained and an ICUR of € 1618 per QALY gained. The probabilistic sensitivity analysis gave a 41% probability that PET-CT based planning improves health outcomes at reduced costs and a 59% probability that PET-CT based planning is more effective at slightly higher costs. **CONCLUSIONS:** PET-based radiotherapy planning for non-small cell lung cancer is highly cost-effective compared to CT-based planning.

PCN126

COST-EFFECTIVENESS OF SYSTEMATIC TESTING FOR LYNCH SYNDROME IN PATIENTS NEWLY DIAGNOSED WITH COLORECTAL CANCER IN THE UNITED KINGDOM

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OBJECTIVES: The cost-effectiveness of genetic testing for Lynch Syndrome for patients newly diagnosed with colorectal cancer in the UK has not previously been estimated. Therefore, the cost-effectiveness of nine testing strategies were simultaneously compared using a detailed and rigorous mathematical model. **METHODS:** In the base case analysis, probands were tested only if aged 50 or below. Testing strategies included use of family history, tumour-based tests and genetic testing. The clinical pathways of thousands of individual patients diagnosed with colorectal cancer (CRC) and their relatives were simulated. For each person, the total costs and quality-adjusted life years (QALYs) were calculated using methodology recommended by the National Institute of Health and Care Excellence (NICE). Simulated clinical events included incidence of CRC and endometrial cancer (EC); surgery for CRC and EC, colonoscopies (including bleeding and perforation), mortality from CRC, EC, colonoscopy and background causes. A proportion of people diagnosed with Lynch Syndrome were assumed to receive prophylactic hysterectomy and to undergo biennial colonoscopies (assumed to reduce the incidence and stage of colorectal cancer). The costs of treating patients with CRC with surgery, chemotherapy, radiotherapy, stoma care and palliative care were captured. Similarly, the costs of treating patients with EC with chemotherapy and radiotherapy were included. **RESULTS:** The life expectancies of probands and relatives with Lynch Syndrome are estimated to increase by up to 1.6 years, depending on the strategy for genetic testing. All testing strategies are predicted to offer good value for money versus no testing, with all incremental cost-effectiveness ratios below the UK basic cost-effectiveness threshold of £20,000 per QALY. Universal genetic testing is predicted to offer poor value for money versus targeted genetic testing. **CONCLUSIONS:** Results suggest that targeted genetic testing for Lynch Syndrome for patients with newly diagnosed CRC in the UK is a good use of limited financial resources.

PCN127

COST-EFFECTIVENESS ANALYSIS OF CAPSULE ENDOSCOPY IN SCREENING FOR COLORECTAL CANCER IN JAPAN

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OBJECTIVES: The PillCam COLON2 is a colon capsule endoscopy (CCE) that makes a minimally-invasive colonoscopy possible and is expected to improve detailed examination rate which have been identified as a problem concerning a population-based colorectal cancer (CRC) screening system in Japan. The objective of this analysis was to evaluate the cost-effectiveness of CCE if newly introduced into the current population-based CRC screening system in Japan. **METHODS:** The subject of this analysis was a sequential screening system for which CCE has been incorporated (immunochemical fecal occult blood test (IFOBT) → detailed examination by CCE → detailed examination by colonoscopy) and the comparator was the conventional sequential screening system (IFOBT → detailed examination by colonoscopy). The target population includes asymptomatic adults aged 40 years old and a lifelong simulation was conducted using a Markov model which consists of 8 states, no polyp, adenomatous polyp (≤ 5mm, 6-9mm and ≥ 10mm), localized CRC, regional CRC, distant CRC and death. The efficacy measures were life year and quality-adjusted life year (QALY). The analysis was conducted from the perspective of the payer and only direct medical costs were considered. **RESULTS:** The incremental cost effectiveness ratio (ICER) observed when incorporating CCE into the conventional screening system was €59,911 per QALY, €25,060 per QALY and €14,905 per QALY when assuming a 10%, a 20% and a 30% improvements in detailed examination rates (1 Euro=128 JPY). Therefore, the introduction of CCE was determined to be cost-effective if the detailed examination rate increased by 20% or more relative to current rate with CCE introduction. **CONCLUSIONS:** Based on this analysis, the introduction of CCE into the conventional population-based screening system in Japan is shown to be cost-effective. The cost-effectiveness of CCE is primarily dependent on the degree of improvement in the current detailed examination rate.

PCN128

COST-EFFECTIVENESS OF FIRST-LINE TREATMENT OF ADVANCED METASTATIC NON SMALL CELL LUNG CANCER- A SYSTEMATIC REVIEW OF ECONOMIC MODELS

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